

CLAIMS:

What is claimed is:

- 5 1. A method for generating bids for an auction, the
method comprising:
identifying a final equilibrium position for a set
of bidding agents; and
submitting a bid for each of the bidding agents
10 based on the final equilibrium.
2. The method of claim 1, wherein each of the bidding
agents in the set of bidding agents includes an upper
limit.
- 15 3. The method of claim 1, wherein the identifying step
comprises:
sorting a plurality of bids by decreasing bid amount
to form a sorted set of bids, wherein bids for the set of
20 bidding agents are sorted using upper limits for the bids
for the set of bidding agents;
identifying a first bid from the plurality of bids
in which an unallocatable portion of a requested quantity
is present;
25 selecting a number of bids from the plurality of
bids, wherein the number of bids are higher in the sorted
set of bids than the first bid and wherein the number of
bids have an allocation requirement less than the
unallocatable portion of the of the first bid; and
30 setting a price for the number of bids.
4. The method of claim 3, wherein the sorting step,
identifying step, selecting step, and setting step are
repeated for unallocated items, remaining bids, and

remaining unpriced order bids.

5. A method for generating bids for bidding agents in an auction, the method comprising:

5 sorting a plurality of bids by decreasing bid amount
to form a sorted set of bids, wherein each bid includes a
quantity and wherein the plurality of bids includes order
bids;

identifying a first bid requesting a quantity in
10 which an unallocatable portion is present;

selecting a number of order bids from the plurality of bids, wherein the number of order bids are higher in the sorted set of bids than the first bid and have an allocation requirement less than the unallocatable portion of the of the first bid; and

setting a price for the number of order bids.

6. The method of claim 5, wherein the number of order bids is a single order bid.

7. The method of claim 5, wherein each bid in the number of order bids is selected from the plurality of bids based on the allocation requirement, upper limit, and a time when each order bid in the number of order
25 bids was received.

8. The method of claim 5, wherein each order bid in the number of order bids is selected from the plurality of bids based on the allocation requirement and an upper
30 limit.

9. The method of claim 5, wherein each bid in the

494

- Abstract**

order bids are higher in the sorted set of bids than the first bid and have an allocation requirement less than the unallocatable portion of the of the first bid, set a price for the number of order bids.

5

14. The data processing system of claim 13, wherein the bus system is a single bus.

15. The data processing system of claim 13, wherein the
10 bus system includes a primary bus and a secondary bus.

16. The data processing system of claim 13, wherein the processing unit includes a plurality of processors.

15 17. The data processing system of claim 13, wherein the
communications unit is one of a modem and Ethernet
adapter.

18. A data processing system for generating bids for an
20 auction, the data processing system comprising:
identifying means for identifying a final
equilibrium position for a set of bidding agents; and
submitting means for submitting a bid for each of
the bidding agents based on the final equilibrium.

25

19. The data processing system of claim 18, wherein each of the bidding agents in the set of bidding agents includes an upper limit.

20. The data processing system of claim 18, wherein the identifying means comprises:
 sorting means for sorting a plurality of bids by

5 identifying means for identifying a first bid from
the plurality of bids in which an unallocatable portion
of a requested quantity is present;

setting means for setting a price for the number of
15 bids.

22. A data processing system for generating bids for bidding agents in an auction, the data processing system comprising:

identifying means for identifying a first bid
30 requesting a quantity in which an unallocatable portion
is present;

Docket No. YOR9-2000-0126-US1

from the plurality of bids, wherein the number of order bids are higher in the sorted set of bids than the first bid and have an allocation requirement less than the unallocatable portion of the of the first bid; and

5 setting means for setting a price for the number of order bids.

23. The data processing system of claim 22, wherein the number of order bids is a single order bid.

10

24. The data processing system of claim 22, wherein each bid in the number of order bids is selected from the plurality of bids based on the allocation requirement, upper limit, and a time when each order bid in the number
15 of order bids was received.

15

25. The data processing system of claim 22, wherein each order bid in the number of order bids is selected from the plurality of bids based on the allocation requirement and an upper limit.
20

20

26. The data processing system of claim 22, wherein each bid in the number of order bids is selected based on the allocation requirement and the number of order bids
25 maximize revenue.

25

27. The data processing system of claim 22 further comprising:

repeating means for repeating initiation of the
30 selecting means and setting means for any remaining portion of the unallocatable portion and any remaining order bids in the plurality of bids.

30

5

10 30. A computer program product in a computer readable
medium for generating bids for an auction, the computer
program product comprising:

15

20

25

30

4.4

[illegible]